

CLAIM 8

The Office Action rejected claim 8 under 35 U.S.C. § 102 over Teo.

Applicants traverse those rejections for at least the following reasons.

Among other things, the in the method of claim 8, forming the conductive line comprises forming a dielectric film pattern defining a line-shaped opening on the first interlayer dielectric layer, and depositing conductive material in the line-shaped opening. No such feature is disclosed by Teo.

The Office Action states that:

*“Teo also **inherently** teaches . . . forming a dielectric film pattern defining a line-shaped opening on the first interlayer dielectric layer, and depositing conductive material in the line-shaped opening because Teo teaches that the conductive line 13, which is the line-shaped conductor, is a patterned conducting layer (col. 3, lines 5-6).”*

However, the fact that Teo discloses that conductive line 13 is “a patterned conducting layer” falls far, far short of inherently teaching that it is formed by “forming a dielectric film pattern defining a line-shaped opening on the first interlayer dielectric layer, and depositing conductive material in the line-shaped opening.”

The M.P.E.P. states that:

“To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is *necessarily* present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *Inherency, however, may not be established by probabilities or possibilities.* The mere fact that a certain thing *may* result from a given set of circumstances *is not sufficient.*”

M.P.E.P. § 2112, page 51 of Chapter 2100, citing In Re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1951 (Fed. Cir. 1999) (emphasis added) (citations omitted).

Clearly, the fact that conductive line 13 is “a patterned conducting layer” does not necessarily mean that it is formed by “forming a dielectric film pattern defining a line-shaped opening on the first interlayer dielectric layer, and depositing conductive material in the line-shaped opening.” For only one of many possible examples, the conductive line 13 in Teo may have been formed by depositing a conductive layer over the entire substrate, depositing and masking a photoresist layer, and etching the conductive layer through the masked photoresist layer to produce the conductive line 13. Many other possible methods exist for producing a “patterned” conductive line 13, other than the specific process claimed in claim 8. Furthermore, those methods may not have the advantages and benefits attendant to the claimed method.

Accordingly, Applicants respectfully submit that Teo does not disclose, either explicitly or inherently, producing the conductive line by “forming a dielectric film pattern defining a line-shaped opening on the first interlayer dielectric layer, and depositing conductive material in the line-shaped opening.”

Meanwhile, to support a rejection under 35 U.S.C. § 102, the reference must disclose each and every element of the claim. See M.P.E.P. § 2131 (“TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM”); Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (“The identical invention must be shown in as complete detail as is contained in the ... claim.”).

As explained above, Teo does not disclose producing the conductive line by “forming a dielectric film pattern defining a line-shaped opening on the first interlayer dielectric layer, and depositing conductive material in the line-shaped opening.”

Accordingly, for at least these reasons, Applicants respectfully submit that claim is indeed patentable over Teo under 35 U.S.C. § 102.

CONCLUSION

In view of the foregoing explanations, Applicant respectfully requests that the Examiner reconsider and reexamine the present application, allow claims 2-10, 14, 15 and 21-23, and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to


contact Kenneth D. Springer (Reg. No. 39,843) at (703) 715-0870 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,

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Date: 13 June 2003

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